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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

Arizona Corporation Commission

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TOM FORESE-- Chairman  
BOB BURNS  
DOUG LITTLE  
ANDY TOBIN  
BOYD DUNN

APR 17 2017

DOCKETED BY

*Wm GB*

IN THE MATTER OF THE APPLICATION OF  
ARIZONA PUBLIC SERVICE COMPANY  
FOR A HEARING TO DETERMINE THE  
FAIR VALUE OF THE UTILITY PROPERTY  
OF THE COMPANY FOR RATEMAKING  
PURPOSES, TO FIX A JUST AND  
REASONABLE RATE OF RETURN  
THEREON, TO APPROVE RATE  
SCHEDULES DESIGNED TO DEVELOP  
SUCH RETURN.

DOCKET NO. E-01345A-16-0036

IN THE MATTER OF FUEL AND  
PURCHASED POWER PROCUREMENT  
AUDITS FOR ARIZONA PUBLIC SERVICE  
COMPANY.

DOCKET NO. E-01345A-16-0123

**NOTICE OF FILING  
STAFF'S REBUTTAL TESTIMONY  
IN SUPPORT OF THE  
SETTLEMENT AGREEMENT**

The Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission")  
hereby files the Rebuttal Testimony of Ralph C. Smith in Support of the Settlement Agreement,  
regarding the above-captioned Dockets.

RESPECTFULLY SUBMITTED this 17<sup>th</sup> day of April, 2017.

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On this 17th day of April, 2017, the foregoing document was filed with Docket Control as an Utilities Division Pre-Filed Testimony, and copies of the foregoing were mailed on behalf of the Utilities Division to the following who have not consented to email service. On this date or as soon as possible thereafter, the Commission's eDocket program will automatically email a link to the foregoing to the following who have consented to email service.

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**BEFORE THE ARIZONA CORPORATION COMMISSION**

**TOM FORESE - CHAIRMAN  
BOB BURNS  
DOUG LITTLE  
ANDY TOBIN  
BOYD DUNN**

IN THE MATTER OF THE APPLICATION OF )	DOCKET NO. E-01345A-16-0036
ARIZONA PUBLIC SERVICE COMPANY FOR A )	
HEARING TO DETERMINE THE FAIR VALUE )	
OF THE UTILITY PROPERTY OF THE )	
COMPANY FOR RATEMAKING PURPOSES, )	
TO FIX A JUST AND REASONABLE RATE OF )	
RETURN THEREON, AND TO APPROVE RATE )	
SCHEDULES DESIGNED TO DEVELOP )	
SUCH RETURN )	
_____ )	
IN THE MATTER OF FUEL AND PURCHASED )	DOCKET NO. E-01345A-16-0123
POWER PROCUREMENT AUDITS FOR )	
ARIZONA PUBLIC SERVICE COMPANY )	
_____ )	

**REBUTTAL TESTIMONY**

**IN SUPPORT OF THE SETTLEMENT AGREEMENT**

**OF**

**RALPH C. SMITH**

**ON BEHALF OF THE**

**UTILITIES DIVISION**

**ARIZONA CORPORATION COMMISSION**

**APRIL 17, 2017**

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### Attachments

RCS-1-R:	Residential Customer Bill Impact Comparison at New Rates
RCS-2-R:	Presents a copy of the Tucson Electric Power Company ("TEP") Residential Basic Service tariff, showing that the Basic Service Charge is \$13 per month for single-phase service and \$18 per month for three-phase service.
RCS-3-R:	Presents a copy of the UNS Electric, Inc. ("UNS") Residential Basic Service tariff, showing that the Basic Service Charge is \$15 per month (i.e., the same rate to which AARP witness, Mr. Coffman, is objecting as a Settlement Agreement rate component for Arizona Public Service Company ("APS")).
RCS-4-R:	Material Provided by APS for the Third Technical Conference Held on September 29, 2016 Regarding Customer Education

**EXECUTIVE SUMMARY  
ARIZONA PUBLIC SERVICE COMPANY  
DOCKET NOS. E-01345A-16-0036 AND E-01345A-16-0123**

My Rebuttal Testimony in support of the Settlement Agreement responds to AARP witness Coffman's testimony in opposition to the settlement.

1     **I.     INTRODUCTION**

2     **Q.     Please state your name, position, and business address.**

3     A.     Ralph C. Smith. I am a Senior Regulatory Consultant at Larkin & Associates, PLLC, 15728  
4             Farmington Road, Livonia, Michigan 48154.

5  
6     **Q.     Are you the same Ralph C. Smith who has previously submitted testimony in this**  
7             **proceeding?**

8     A.     Yes.

9  
10    **Q.     What is the purpose of your Rebuttal Testimony in support of the Settlement**  
11          **Agreement?**

12    A.     The purpose of my testimony is to respond to issues raised by AARP witness Coffman in  
13             opposition to the Settlement Agreement.

14  
15    **Q.     How is your Rebuttal Testimony in support of the Settlement Agreement organized?**

16    A.     My Rebuttal Testimony responds to the two concerns raised by Mr. Coffman in AARP's  
17             opposition to the Settlement Agreement. I first summarize the concerns he has presented in  
18             opposition to the settlement. I then respond to each of those two concerns.

19  
20    **Q.     Are there any Attachments to your Rebuttal Testimony in support of the Settlement**  
21          **Agreement?**

22    A.     Yes, three. Attachment RCS-1-R presents a bill impact analysis. Attachment RCS-2-R  
23             presents a copy of the Tucson Electric Power Company ("TEP") Residential Basic Service  
24             tariff, showing that the Basic Service Charge is \$13 per month for single-phase service and  
25             \$18 per month for three-phase service. Attachment RCS-3-R presents a copy of the UNS  
26             Electric, Inc. ("UNS") Residential Basic Service tariff, showing that the Basic Service Charge



1 is \$15 per month (i.e., the same rate to which Mr. Coffman is objecting for Arizona Public  
2 Service Company ("APS")). Attachment RCS-4-R contains materials provided by APS from  
3 the third technical conference, held on September 29, 2016, describing in detail APS's  
4 planned customer education program related to the new residential rate design.

5  
6 **II. RESPONSE TO AARP WITNESS COFFMAN**

7 **Q. Has AARP acknowledged that the settlement process allowed for a thorough and**  
8 **comprehensive discussion of all major issues and is beneficial to APS's customers in**  
9 **many respects?**

10 **A.** Yes. At page 3 of his testimony in opposition to the settlement, Mr. Coffman states that:

11 The settlement process allowed for a thorough and comprehensive  
12 discussion of all major issues. AARP is extremely pleased about many aspects  
13 of the Settlement Agreement, including the fact that it would not impose  
14 mandatory demand rates upon current residential customers, as originally  
15 proposed by the Company.

16 **Q. Why has AARP opposed the Settlement Agreement?**

17 **A.** But for two issues, apparently AARP would have joined the Settlement Agreement.<sup>1</sup> AARP  
18 has taken issue with two aspects of the Settlement Agreement, paragraphs 17.2 and 19.1.

19  
20 Mr. Coffman's testimony in opposition to the Settlement Agreement at pages 3-4 opposes the  
21 basic charge component of the residential rate provided for in paragraph 17.2. He states that:

22 In the proposed settlement, APS would increase the fixed "basic service  
23 charge" (BSC) to \$ 15.00 on the monthly bills for customers on a basic flat  
24 rate billing plan who have an average of between 800 kWh and 1,000 kWh of  
25 electricity per month (a rate tariff that is to be designated "R-Basic")  
26 [footnote: Settlement Agreement, p. 17, Subsection 17.2.]. This would amount  
27 to an 87.5% increase from the \$8.00 that most residential customers on a  
28 basic plan now pay in terms of a flat monthly fixed charge. This sharp increase  
29 would create fixed charges for those customers that are among the highest in  
30 the state, higher than similar customers must pay under the most recent

---

<sup>1</sup> Per page 3 of Mr. Coffman's testimony: "two issues ultimately prevent AARP from being a signatory to the Settlement Agreement."

1 Arizona Commission decisions changing rates for UNS and for TEP (i.e.,  
2 \$13.00 per month).

3 He recommends (at page 4) that the Settlement Agreement be revised to have a fixed charge  
4 of \$10 or no more than \$13:

5 AARP is asking that the Commission amend Subsection 17.2 of the  
6 Settlement Agreement, by insisting upon a reduction in the proposed \$15.00  
7 fixed charge for the vast majority of R-Basic customers who use between 800  
8 kWh - 1,000 kWh of electricity per month. AARP would prefer that this  
9 group of R-Basic customers pay \$10.00 monthly, but no more than \$13.00  
10 monthly.

11 Mr. Coffman is also opposed to the provision in Subsection 19.1 of the Settlement  
12 Agreement that applies to "new customers or customers on another rate" under which new  
13 customers would be denied the ability to initially choose Basic rate plans after May 1, 2018.  
14 Among other things, he claims (at page 6) that: "Subsection 19.1 would create a policy of  
15 discriminatory treatment towards new customers and would also come with a high barrier for  
16 switching to a Basic rate later. It would likely be confusing and frustrating for the affected  
17 customers, creating the need for considerable customer education to make the 'opt out'  
18 procedure more understandable." He recommends that new customers should not be forced  
19 to have a 90-day trial on an initial rate plan before having the opportunity to choose a  
20 different rate.

21  
22 *Basic Service Charge*

23 **Q. Mr. Coffman refers to an 87.5 percent increase. Is that the proper way to measure**  
24 **customer bill impacts?**

25 A. No. He focuses only on the basic service charge and ignores other components of the  
26 customer bill, which is not a complete approach to evaluating customer bill impacts.  
27 Attachment CAM-15D to APS witness Meisner's Direct Testimony in Support of the  
28 Settlement Agreement shows bill impacts for typical residential customers of 3.87 percent.

The Settlement Agreement at page 6, paragraph 1.59(b) indicates that there would be an average 4.54 percent impact for residential customers, compared to an average 7.96 percent impact under APS's original application. These overall residential bill impacts are far below the percentage increased upon which Mr. Coffman has focused. Focusing on only one component of residential electric bills and ignoring the remaining components can be misleading.

**Q. Are you presenting additional information on residential customer bill impacts to address the implication raised by AARP witness Coffman that the Settlement Agreement would result in unreasonable percentage increases to the bills of typical APS residential customers?**

**A.** Yes. An evaluation of customer bill impacts reveals that the impact is in the range of \$110.61 on Transition Rate E-12 to \$110.74 on Rate R-Basic and \$111.56 on Rate TOU-E for a customer using 773 kWh per month. For a customer using 950 kWh per month, the settlement rates are in the range of \$139.22 on Transition Rate E-12 to \$132.48 on Rate R-Basic and \$134.21 on Rate TOU-E. Corresponding R-2 and R-3 rates for a customer using 773 kWh and 950 kWh are also shown in the following table:

**Settlement Rates - Comparison of Residential Customer Monthly Bill Impacts**

Transition E-12, R-Basic, and Other TOU and Demand Rates  
Monthly Bills by monthly kWh

Avg kWh	Transition E-12	R-Basic	TOU-E	R-2	R-3	Best Rate
773	110.61	110.74	111.56	114.75	121.93	R-Basic
950	139.22	132.48	134.21	136.65	144.66	R-Basic

Notes:

1. Bills include base rates; excludes adjustor rates and taxes.
2. Represents typical kW demand and on-peak consumption for each usage level.
3. Does not reflect additional bill savings from TOU-E, R-2, and R-3 through changes in usage, such as shifting kWh to off-peak hours or reducing on-peak kW

The customer bill impact analysis is also shown in additional detail in Attachment RCS-1-R to my Rebuttal Testimony.

**Q. What are some of the important facts to be gleaned from the residential customer bill impact comparison?**

**A.** Some of the important facts to be gleaned from the customer bill impact comparison include the following:

- The change in the Basic Service Charge from \$8 to \$15 does not result in a \$7 increase in rates for the average residential customer.
- The TOU-E option is virtually equivalent to the R-Basic option, resulting in a slightly higher bill at 773 kWh per month and a lower bill at 950 kWh per month.
- Any change in behavior or consumption could result in greater savings.

**Q. Mr. Coffman references the basic service charges of TEP and UNS Electric and claims that the APS basic service charge of \$15 per typical month "would create fixed charges for those customers that are among the highest in the state, higher than similar customers must pay under the most recent Arizona Commission decisions changing rates for UNS and for TEP (i.e., \$13.00 per month)." Please respond.**

**A.** A review of TEP's Residential Basic Service Tariff, contained in Attachment RCS-2-R shows that the Basic Service Charge is \$13 per month for single-phase service and \$18 per month for three-phase service. Attachment RCS-3-R presents a copy of the UNS Residential Basic Service tariff, which shows that the Basic Service Charge is \$15 per month. Thus, Mr. Coffman's statements appear to be incorrect with respect to the UNS basic service charge of

1       \$15 per month, which is the same \$15 per month BSC rate to which Mr. Coffman is  
2       objecting for APS.

3  
4       **Q.    At page 4, Mr. Coffman states that: "AARP believes that residential customers should**  
5       **be able to choose a plan that does not put an unreasonable amount of the rate**  
6       **recovery into a fixed charge, as opposed to basing more cost recovery upon individual**  
7       **household consumption." Has Mr. Coffman shown that a basic service charge of \$15**  
8       **per month is unreasonable?**

9       A.    No. To my knowledge he has presented no evidence that a basic service charge of \$15 is  
10       unreasonable or is not supported by and reasonably related to the cost of providing service.

11  
12       **Q.    Do other APS residential rate plans offer a lower fixed charge?**

13       A.    Yes. The TOU-E, for example, has a basic service charge of \$13 per month.<sup>2</sup>

14  
15       **Q.    AARP witness Coffman claims at page 4 that: "Charging too much in the BSC for**  
16       **residential consumers limits the ability of those customers to control their monthly**  
17       **bills and reduces the incentive for energy efficiency and energy conservation**  
18       **measures." Please respond.**

19       A.    Under the Settlement Agreement, residential customers are presented with a range of optional  
20       rate plans, including a flat rate, a time-of-use (TOU) energy rate, and two TOU demand rates.  
21       Customers who desire a lower BSC and enhanced incentives for energy efficiency and energy  
22       conservation measures can choose a rate such as R-TOU-E.

23  

---

<sup>2</sup> APS's Basic Service Charges are charged on a per-day basis. The equivalent amount is for a typical month.



1 **Q. Is the basic service charge for residential rates that is provided for in the Settlement**  
2 **Agreement reasonable?**

3 A. Yes. The residential basic service charge provided for in the Settlement Agreement is  
4 reasonable. The \$15 reflects the compromise settlement of complex issues among a wide  
5 range of parties, including parties such as Residential Utility Consumer Office ("RUCO")  
6 who are charged with representing the interests of residential customers. As noted above, the  
7 \$15 per month BSC in the Settlement Agreement is also comparable to the UNS basic service  
8 charge of \$15 per month, which is shown in Attachment RCS-3-R.

9  
10 *Paragraph 19.1, 90-Day New Customer Trial of TOU or Demand-Based Rates*

11 **Q. Why was paragraph 19.1 included in the Settlement Agreement?**

12 A. Paragraph 19.1 entitled "Residential Rate Availability" was included in the Settlement  
13 Agreement as part of the overall compromise on issues related to changes to rate design  
14 options for APS. It allows customers to select the plan of their choice to the extent they  
15 qualify until May 18, 2018, unless they are grandfathered under another section of the  
16 Agreement. New customers after May 1, 2018, may choose TOU-E, R-2, R-3 or if they  
17 qualify R-XS or R-Tech. After 90 days, new customers may opt-out of their current rate and  
18 select R-Basic if they qualify. Without 90 days of usage data, the new customer will not have  
19 adequate information to make an informed decision regarding the rate plan.

20  
21 **Q. Do residential customers of APS continue to have choices among rate plans?**

22 A. Yes. Residential customers will have choices for a flat rate, a time-of-use (TOU) energy rate,  
23 and two TOU demand rates. All rate choices will be voluntary, although after May 1, 2018, as  
24 provided for in paragraph 19.1 of the Settlement Agreement, new APS residential customers  
25 are required to give either TOU or demand-based rates a 90-day trial before switching to a  
26 flat rate plan (excluding customers that qualify for rate R-XS).

1

2 **Q. Is the requirement in paragraph 19.1 improperly "discriminatory" as claimed by**  
3 **AARP?**

4 A. No. Since it would apply to all new APS residential customers (excluding customers that  
5 qualify for rate R-XS), Staff views this provision as being a reasonable way to implement the  
6 new rate design. It is fairly common in utility rate design to have different rate provisions  
7 apply to new customers. Grandfathering and having frozen rate structures for existing  
8 customers has been used historically in the evolving rate design for Arizona electric utilities.  
9 Having rate distinctions between existing and new customers is not inherently improper and  
10 can be a reasonable way of implementing modern utility rate design that is a better reflection  
11 of cost causation.

12

13 **Q. Would paragraph 19.1 create a "high barrier" (as claimed by AARP witness Coffman)**  
14 **for switching to a Basic rate later?**

15 A. I don't believe so. Paragraph 19.1 does not appear to impose any barrier for switching to a  
16 Basic rate after the initial 90-day trial period.

17

18 **Q. Is customer education needed concerning the new rates?**

19 A. Yes. APS has indicated that it would be conducting an extensive customer education effort.  
20 See, e.g., the material from APS's third technical conference held Thursday, September 29th,  
21 2016, attached for ease of reference as Attachment RCS-4-R.

22

1    **Q.    Should new customers who are initially placed onto a TOU or demand rate be**  
2       **notified about their option to switch?**

3    A.    Yes. Staff believes there would be merit in having APS notify the customers near the end of  
4       the 90-day trial period about the option to switch to another rate. Ideally, such notification  
5       would be accompanied with information on the estimated bill impact of switching.

6  
7    **Q.    Does Staff agree with AARP's position that the Settlement Agreement is unreasonable**  
8       **unless paragraph 19.1 is revised to eliminate the 90-day trial period?**

9    A.    No. Staff's position is that the Settlement Agreement taken as a whole is reasonable and in  
10      the public interest.

11  
12   **Q.    Does this conclude your Rebuttal Testimony in support of the Settlement Agreement?**

13   A.    Yes, it does.

Settlement Rates Comparison of Residential Customer Bill Impacts

Transition E-12, R-Basic, and Other TOU and Demand Rates

Monthly Bills by monthly kWh

<u>Line No.</u>	<u>Avg kWh</u>	<u>Transition E-12</u>	<u>R-Basic</u>	<u>TOU-E</u>	<u>R-2</u>	<u>R-3</u>	<u>Best Rate</u>
-----------------	----------------	------------------------	----------------	--------------	------------	------------	------------------

**I. Estimated Monthly Bills**

1	773	\$ 110.61	\$ 110.74	\$ 111.56	\$ 114.75	\$ 121.93	R-Basic
2	950	\$ 139.22	\$ 132.48	\$ 134.21	\$ 136.65	\$ 144.66	R-Basic

**II. Dollar Difference New Rate Compared with Transition Rate E-12**

	<u>Avg. kWh</u>	<u>E-12</u>	<u>R-Basic</u>	<u>TOU-E</u>	<u>R-2</u>	<u>R-3</u>
3	773		\$ 0.13	\$ 0.95	\$ 4.14	\$ 11.32
4	950		\$ (6.74)	\$ (5.01)	\$ (2.57)	\$ 5.44

**Percent Increase (Decrease) New Rate Compared with Transition Rate E-12**

	<u>Avg. kWh</u>	<u>E-12</u>	<u>R-Basic</u>	<u>TOU-E</u>	<u>R-2</u>	<u>R-3</u>
5	773		0.12%	0.86%	3.74%	10.23%
6	950		-4.84%	-3.60%	-1.85%	3.91%

**Notes**

1. Bills include base rates; excludes adjustor rates and taxes.
2. Represents typical kW demand and on-peak consumption for each usage level.
3. Does not reflect additional bill savings from TOU-E, R-2, and R-3 through changes in usage, such as shifting kWh to off-peak hours or reducing on-peak kW

Attachment RCS-2-R

Copy of the Tucson Electric Power Company ("TEP")  
Residential Basic Service tariff,  
showing that the Basic Service Charge is  
\$13 per month for single-phase service and  
\$18 per month for three-phase service





## Tucson Electric Power

## Tucson Electric Power Company

Original Sheet No.: 101  
Superseding: \_\_\_\_\_

### Residential Service Basic

#### AVAILABILITY

Available throughout the Company's entire electric service area where the facilities of the Company are of adequate capacity and are adjacent to the premises.

#### APPLICABILITY

To all single-phase or three-phase residential electric service (subject to availability at point of delivery) in individual private dwellings and individually metered apartments when all service is supplied at one point of delivery and energy is metered through one meter.

For those dwellings and apartments where electric service has historically been measured through two meters, when one of the meters was installed pursuant to the Residential Electric Water Heating Service Rate (R-02F) which is no longer in effect, the electric service measured by such meters shall be combined for billing purposes.

Separately metered buildings (such as garages and or wells) that are on the same lot as a residential area will be classified as non-residential and the appropriate general service rate will be applied.

Not applicable to resale, breakdown, temporary, standby, auxiliary service, or service to electrical equipment that causes excessive voltage fluctuations.

Customers may switch between applicable rate tariffs once in a rolling twelve month period.

#### CHARACTER OF SERVICE

The service shall be single-phase or three-phase, 60 Hertz, and at one standard nominal voltage as mutually agreed and subject to availability at point of delivery.

#### RATE

A monthly bill at the following rate plus any adjustments incorporated herein:

#### BUNDLED STANDARD OFFER SERVICE - SUMMARY OF BASIC SERVICE AND ENERGY CHARGES

Basic Service Charge, Single-phase service, per month	\$13.00
Basic Service Charge, Three-phase service, per month	\$18.00

#### Energy Charges (\$/kWh):

0 - 500	\$0.066152
501- 1000	\$0.081152
Over 1000	\$0.086652

Energy Charge is a bundled charge that includes: Local Delivery-Energy (Local Delivery and/or Distribution exclusive of Transmission/Ancillaries), Generation Capacity, Fixed Must-Run, Transmission and Ancillary Services.

Filed By: Kentton C. Grant  
Title: Vice President, Rates and Planning  
District: Entire Electric Service Area

Rate: TRRES  
Effective: February 27, 2017  
Decision No.: 75975



## Tucson Electric Power

## Tucson Electric Power Company

Original Sheet No.: 101 - 1

Superseding: \_\_\_\_\_

Power Supply Charge (\$/kWh):	Summer (May – September)	Winter (October – April)
Base Power	\$0.035861	\$0.032515
Purchased Power and Fuel Adjustment Clause (PPFAC): The Base Power Supply Charge shall be subject to a per kWh adjustment in accordance with Rider-1 to reflect any increase or decrease in the cost to the Company for energy either generated or purchased above or below the base cost of purchased power and fuel.		

### MONTHLY LIFELINE DISCOUNT:

For current and new eligible Lifeline customers taking service hereunder, the monthly bill shall be in accordance to the rate above except that a discount of \$15.00 per month shall be applied.

New customers, including those who move, are no longer eligible for the discounts in the table below. For current Lifeline customers formerly taking service under one of the following discontinued rates, the monthly bill shall be in accordance to the rate above except the discount per month shall be applied as follows:

	Discount
Residential Lifeline/Senior R-04-01F	\$30
Residential Lifeline Service R-06-01F	\$18
Residential Lifeline Medical R-08-01F	\$40

For all customers, no Lifeline discount will be applied that will reduce the bill to less than zero.

### LIFELINE ELIGIBILITY

1. The TEP account must be in the Customer's name applying for a Lifeline discount.
2. Applicant must be a TEP residential customer residing at the premise.
3. Applicant must have a combined household income at or below 150% of the federal poverty level. See Income Guidelines Chart on TEP's website at [www.tep.com](http://www.tep.com) or contact a TEP customer care representative.

### DIRECT ACCESS

A Customer's Direct Access bill will include all unbundled components except those services provided by a qualified third party. Those services may include Metering (Installation, Maintenance and/or Equipment), Meter Reading, Billing and Collection, Transmission and Generation. If any of these services are not available from a third party supplier and must be obtained from the Company, the rates for Unbundled Components set forth in this tariff will be applied to the customer's bill.

### FOR DIRECT ACCESS: ARIZONA INDEPENDENT SCHEDULING ADMINISTRATOR (AZISA) CHARGE

A charge per kWh shall, subject to FERC authorization, be applied for costs associated with the implementation of the AZISA in Arizona.

Filed By: Kentton C. Grant  
Title: Vice President, Rates and Planning  
District: Entire Electric Service Area

Rate: TRRES  
Effective: February 27, 2017  
Decision No.: 75975



## Tucson Electric Power

## Tucson Electric Power Company

Original Sheet No.: 101 - 2

Superseding: \_\_\_\_\_

### TEP STATEMENT OF CHARGES

For all additional charges and assessments approved by the Arizona Corporation Commission see the TEP Statement of Charges which is available on TEP's website at [www.tep.com](http://www.tep.com).

### TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company and/or the price or revenue from the electric energy or service sold and/or the volume of energy generated or purchased for sale and/or sold hereunder.

### RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

### ADDITIONAL NOTES

Additional charges may be directly assigned to a customer based on the type of facilities (e.g., metering) dedicated to the customer or pursuant to the customer's contract, if applicable. Additional or alternate Direct Access charges may be assessed pursuant to any Direct Access fee schedule authorized.

---

Filed By: Kentton C. Grant  
Title: Vice President, Rates and Planning  
District: Entire Electric Service Area

Rate: TRRES  
Effective: February 27, 2017  
Decision No.: 75975



## Tucson Electric Power

## Tucson Electric Power Company

Original Sheet No.: 101 - 3

Superseding: \_\_\_\_\_

### BUNDLED STANDARD OFFER SERVICE CONSISTS OF THE FOLLOWING UNBUNDLED COMPONENTS:

#### Basic Service Charge Components (Unbundled):

Description:	Single-Phase	Three-Phase
Meter Services	\$1.42	\$6.42
Meter Reading	\$0.27	\$0.27
Billing & Collection	\$3.32	\$3.32
Customer Delivery	\$7.99	\$7.99
Total	\$13.00	\$18.00

#### Energy Charge Components (per kWh) (Unbundled):

Local Delivery	
0 - 500	\$0.016609
501- 1000	\$0.031609
Over 1000	\$0.037109
Generation Capacity	\$0.031960
Fixed Must Run	\$0.006710
Transmission	\$0.008483
System Control & Dispatch	\$0.000120
Reactive Supply and Voltage Control	\$0.000450
Regulation and Frequency Response	\$0.000440
Spinning Reserve Service	\$0.001190
Supplemental Reserve Service	\$0.000190

Energy Imbalance Service: Currently charged pursuant to the Company's OATT

Power Supply Charges (per kWh):	Summer (May - September)	Winter (October - April)
Base Power Component	\$0.035861	\$0.032515
PPFAC	In accordance with Rider 1	

Filed By: Kentton C. Grant  
Title: Vice President, Rates and Planning  
District: Entire Electric Service Area

Rate: TRRES  
Effective: February 27, 2017  
Decision No.: 75975

Attachment RCS-3-R

A copy of the UNS Electric, Inc.  
Residential Basic Service tariff,  
showing that the Basic Service Charge is \$15 per month  
(i.e., the same rate to which AARP witness, Mr. Coffman, is  
objecting as a Settlement Agreement rate component for  
Arizona Public Service Company)





UNS Electric, Inc.

Original Sheet No.: 101

Superseding: \_\_\_\_\_

## Residential Service

### AVAILABILITY

Available throughout the Company's entire electric service area where the facilities of the Company are of adequate capacity and are adjacent to the premises.

### APPLICABILITY

To all single-phase (subject to availability at point of delivery) residential electric service in individual private dwellings and individually metered apartments when all service is supplied at one point of delivery and energy is metered through one meter.

Not applicable to resale, breakdown, temporary, standby, auxiliary service, or service to electrical equipment that causes excessive voltage fluctuations.

### CHARACTER OF SERVICE

The service shall be single-phase, 60 Hertz, and at one standard nominal voltage as mutually agreed and subject to availability at point of delivery.

### RATE

A monthly bill at the following rate plus any adjustments incorporated herein:

### BUNDLED STANDARD OFFER SERVICE - SUMMARY OF BASIC SERVICE AND ENERGY CHARGES

Basic Service Charge

\$15.00 per month

Energy Charges (per kWh):

	Delivery Services-Energy <sup>1</sup>	Power Supply Charges <sup>2</sup>		Total <sup>3</sup>
		Base Power	PPFAC <sup>2</sup>	
0 - 400 kWh	\$0.030010	\$0.055820	Varies	\$0.085830
Over 400 kWh	\$0.042240	\$0.055820	Varies	\$0.098060

1. Delivery Services-Energy is a bundled charge that includes: Local Delivery, Generation Capacity and Transmission.
2. The Power Supply Charge shall be comprised of the Base Power Charge and the Purchased Power and Fuel Adjustment Clause (PPFAC), a per kWh adjustment in accordance with Rider-1. The PPFAC reflects increases or decreases in the cost to the Company for energy either generated or purchased above or below the base cost per kWh sold. Please see Rider-1 for current rate.
3. Total is calculated above for illustrative purposes, and excludes PPFAC, because the PPFAC changes monthly pursuant to Rider-1 PPFAC. While only non-variable components are included in the illustration above, a Customer's actual bill in any given billing month will reflect the applicable PPFAC for that billing month.

Filed By: Kentton C. Grant  
Title: Vice President  
District: Entire Electric Service Area

Rate: ERRES  
Effective: August 22, 2016  
Decision No: 75697



**UNS Electric, Inc.**

Original Sheet No.: 101-1

Superseding: \_\_\_\_\_

**MONTHLY CUSTOMER ASSISTANCE RESIDENTIAL ENERGY SUPPORT (CARES) DISCOUNT:**

For current and new eligible CARES customers taking service under the Residential Service tariff, the monthly bill shall be in accordance to the rate above except that a discount of \$16.00 per month shall be applied.

For current CARES customers who were previously taking service under the CARES Medical Frozen (CARES-MF) tariff, the monthly bill shall be in accordance to the rate above except that a discount of \$28.00 per month shall be applied. New customers, including those who move are no longer eligible for the CARES Medical discount.

For all customers, no CARES discount will be applied that will reduce the bill to less than zero.

**CARES ELIGIBILITY**

1. The UNS Electric account must be in the Customer's name applying for a CARES discount.
2. Applicant must be a UNS Electric residential Customer residing at the premise.
3. Applicant must have a combined household income at or below 150% of the federal poverty level. See Income Guidelines Chart on UNS Electric's website at [www.uesaz.com](http://www.uesaz.com) or contact a UNS Electric customer care representative.

**DIRECT ACCESS**

A Customer's Direct Access bill will include all unbundled components except those services provided by a qualified third party. Those services may include Metering (Installation, Maintenance and/or Equipment), Meter Reading, Billing and Collection, Transmission and Generation. If any of these services are not available from a third party supplier and must be obtained from the Company, the rates for Unbundled Components set forth in this Tariff will be applied to the Customer's bill.

**UNS ELECTRIC STATEMENT OF CHARGES**

For all additional charges and assessments approved by the Arizona Corporation Commission see the UNS Electric Statement of Charges which is available on UNS Electric's website at [www.uesaz.com](http://www.uesaz.com).

**TAX CLAUSE**

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company and/or the price or revenue from the electric energy or service sold and/or the volume of energy generated or purchased for sale and/or sold hereunder.

**RULES AND REGULATIONS**

The standard Rules and Regulations of the Company as on file with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

**BUNDLED STANDARD OFFER SERVICE CONSISTS OF THE FOLLOWING UNBUNDLED COMPONENTS:**

**Basic Service Charge Components (Unbundled):**

Description	
Meter Services	\$ 1.00 per month
Meter Reading	\$ 1.58 per month
Billing & Collection	\$ 4.37 per month
Customer Delivery	\$ 8.05 per month
Total	\$15.00 per month

Filed By: Kentton C. Grant  
Title: Vice President  
District: Entire Electric Service Area

Rate: ERRES  
Effective: August 22, 2016  
Decision No: 75697



**UNS Electric, Inc.**

Original Sheet No.: 101-2

Superseding: \_\_\_\_\_

---

**Energy Charge Components (per kWh) (Unbundled):**

Local Delivery	
0 – 400 kWh	\$0.000810
Over 400 kWh	\$0.013040
Generation Capacity	\$0.018500
Transmission	\$0.010700

**Power Supply Charges (per kWh):**

Component	
Base Power Supply	\$0.055820
PPFAC (see Rider-1 for current rate)	Varies

---

Filed By: Kentton C. Grant  
Title: Vice President  
District: Entire Electric Service Area

Rate: ERRES  
Effective: August 22, 2016  
Decision No: 75697

Attachment RCS-4-R  
Material Provided by APS for the  
Third Technical Conference  
Held on September 29, 2016  
On Customer Education

# APS Rate Case Technical Conference

September 29, 2016



## **Agenda**

- Introduction
- Residential Customer Outreach and Rate Transition Plan
- Rate Design-Overview of Residential Rates and Changes

# **Residential Customer Outreach and Rate Transition Plan**



# Overview

- Current rate plan success
- Creating a customer-centric plan
  - Objectives and Education/outreach framework
  - Customer touchpoints, tools and community outreach
  - Customer engagement factors
- 3 phases of outreach
  - Awareness
  - Transition
  - Transition and Beyond
- Summary





# Proposed rates overview

	<u>Basic Service Charge</u> (per month)	<u>Demand Charge</u> (\$/kW)**	<u>Summer Energy Charge</u> (On/Off Peak \$/kWh)	<u>Winter Energy Charge</u> (On/Off Peak \$/kWh)
Extra Small*	\$18	None	\$0.10324	\$0.10324
R-1	\$24	\$6.60/kW	\$0.1516/\$0.08070	\$0.12730/\$0.08070
R-2	\$14.50	\$8.40/kW	\$0.1516/\$0.0808	\$0.12730/\$0.0808
R-3	\$24	\$16.40/kW summer \$11.50/kW winter	\$0.0909/\$0.05475	\$0.06670/\$0.05475

# Core message - shift, stagger, save

3 ways to save during on-peak hours (3pm-8pm on weekdays)



## shift

usage from on-peak to off-peak

For example, set your dishwasher to run on a delay cycle, run your pool pump at night or do your laundry on the weekend.



## stagger

the use of major appliances

Avoid running major appliances at the same time during on-peak hours. For example, start your laundry after you cook dinner.



## save

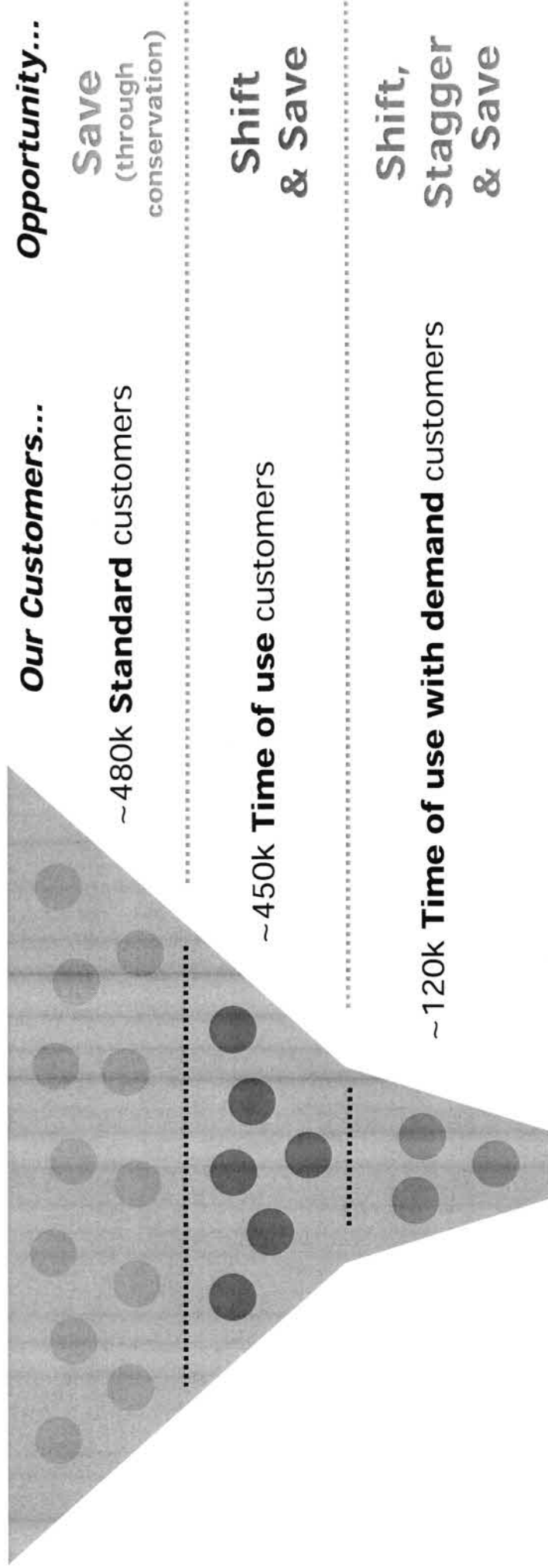
with tips and tools

For example, turn off ceiling fans when leaving a room, switch to LEDs, and get customized savings tips by taking our online Energy Analyzer survey.



# Experience – not starting from zero

~1 million **Residential** customers

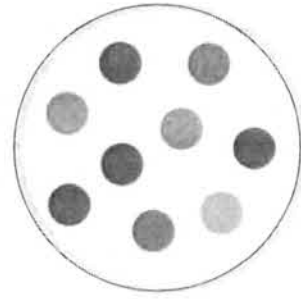


**Create a transition strategy based on experience from our current customers**

Determine:

- Messaging strategies for **Shift, Stagger and Save**
- Touchpoint frequency

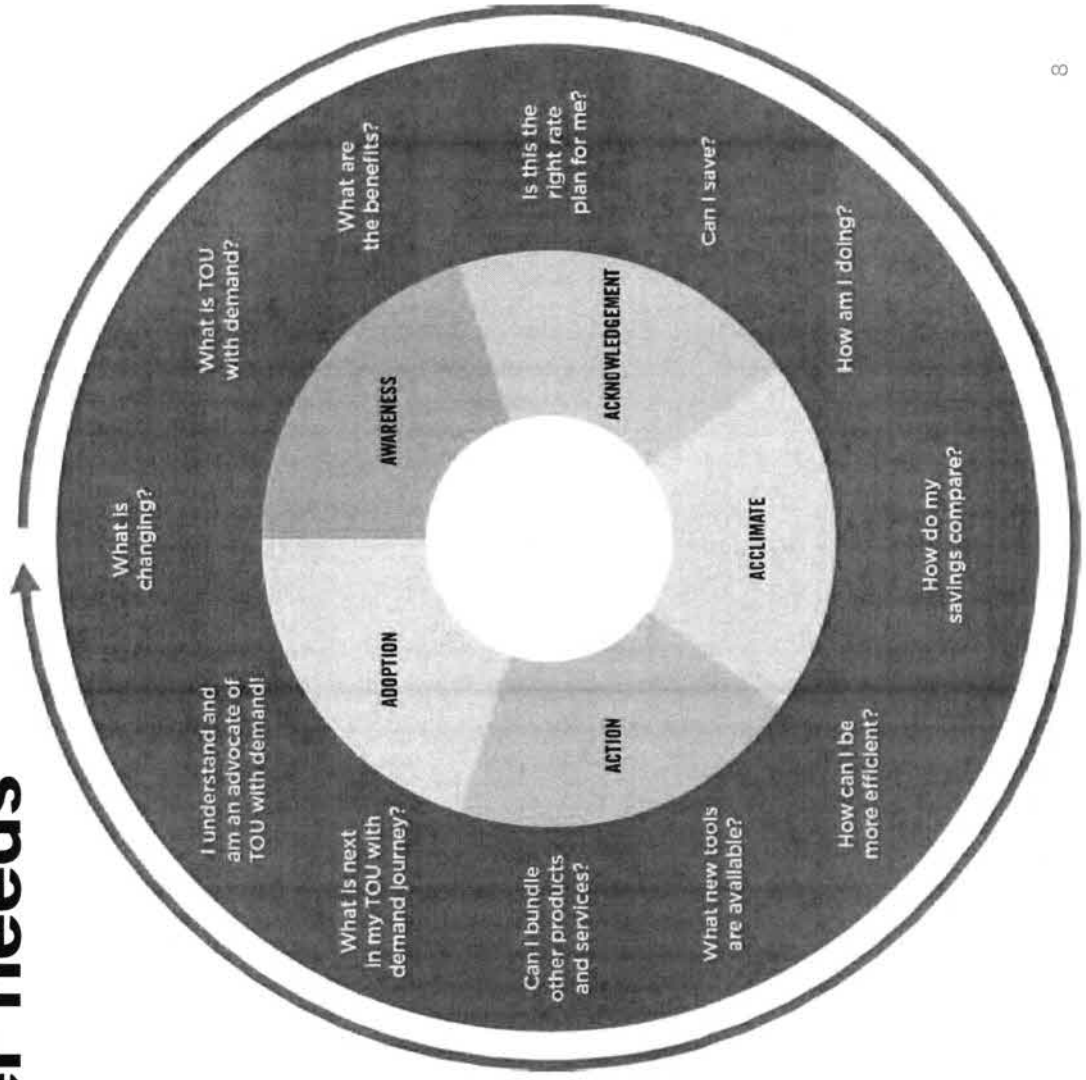
~260 thousand Residential **x-small** customers



# Building an education and outreach plan around the customer needs

## Education & outreach objectives:

- Drive awareness across all communications channels
- Acclimate / familiarize customers with Shift, Stagger and Save
- Create a call to action, getting customers to visit [aps.com](http://aps.com) demand page and become familiar with their demand
- Increase adoption of APS tools and programs to facilitate demand awareness and control



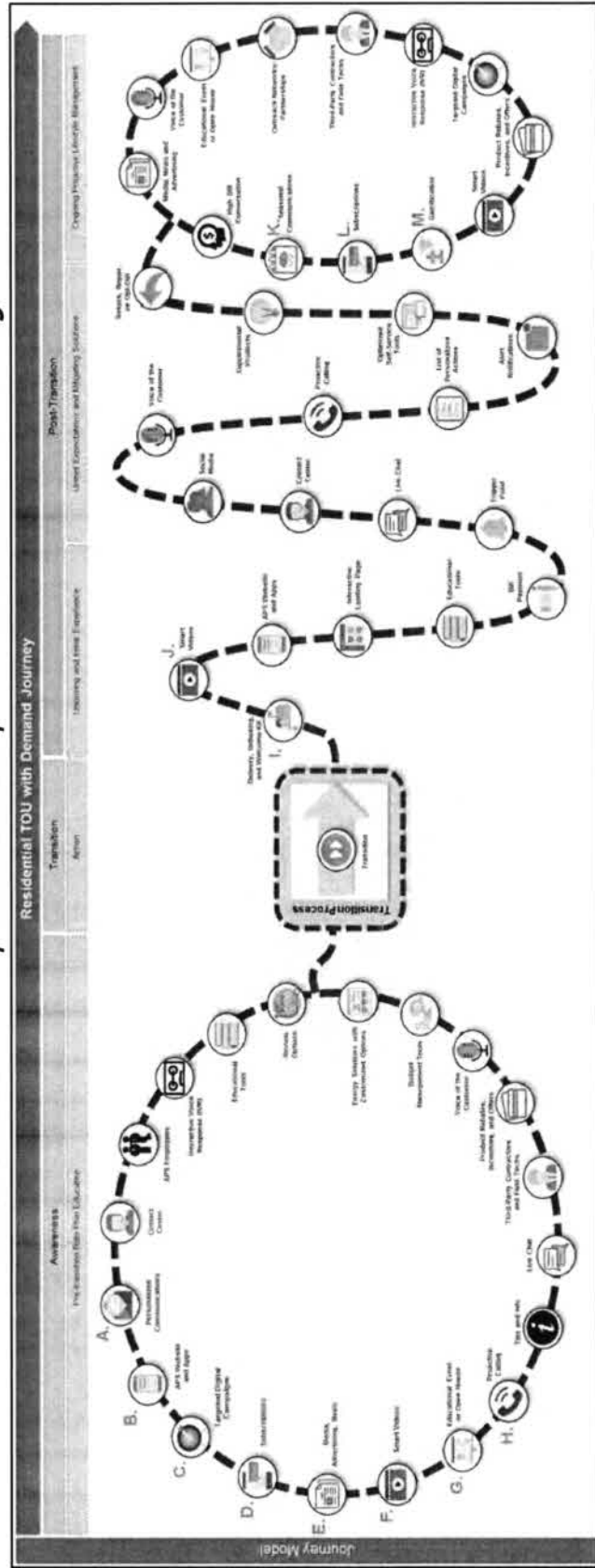
# Customer touchpoints

- A touchpoint is a measureable customer interaction
- Touchpoints can include messaging, communications, tools and live interactions

## Touchpoints help to:

- Create awareness to a change
  - Assist a customer in managing energy and lowering their bill
- = millions of customer touchpoints per year**

## Awareness / Transition / Transition and Beyond





# Digital platforms to support customer education

## Customer-friendly, easy-to-navigate demand webpage:

- aps.com demand webpage, launching this fall
- Easy access to information regarding customer demand questions and quick tips
- Robust webpage with personalized education tools

## Arizona energy initiatives:

- AZenergyfuture.com website
- Detailed information relevant to Arizona's energy future and rate reviews
- Intended for stakeholders and highly engaged customers



*aps.com demand webpage demo*



# Digital tools to help customers manage usage

## APS mobile app

- Create transparency in current and historical usage and demand information

## Notifications and alerts center

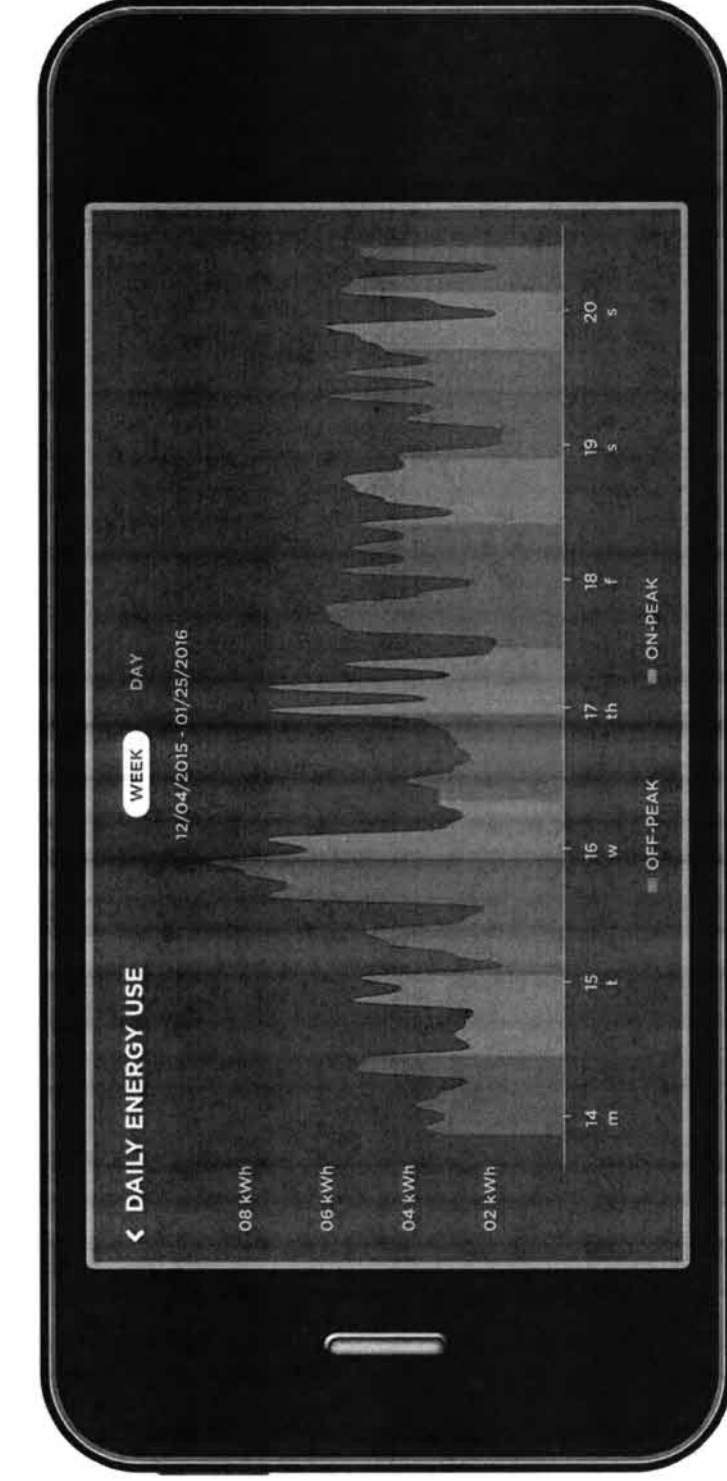
- Alert customers via text and email set to their threshold preferences
  - Overall energy usage
  - Peak usage alert
  - Payment alert
  - Outages reported



*APS mobile app demo*



# Mobile phone app and notifications



Customer's peak usage graph





# Awareness through community outreach



APS is engaged in the community through...

## Community outreach

- Delivered over 50 presentations to various organizations and communities across Arizona

## Customer open house events

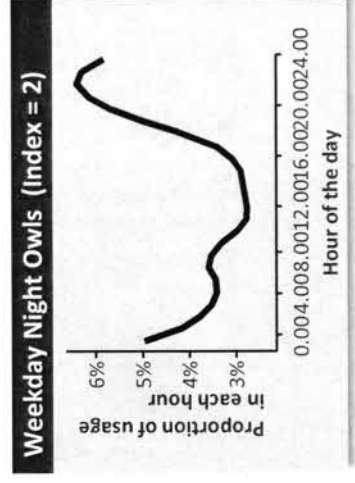
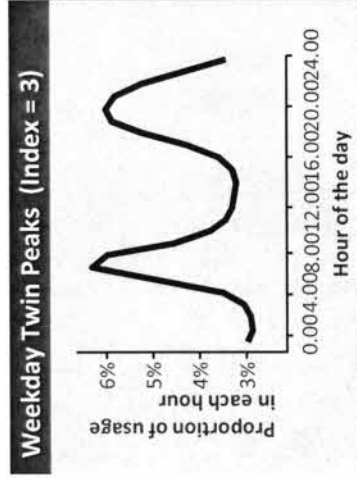
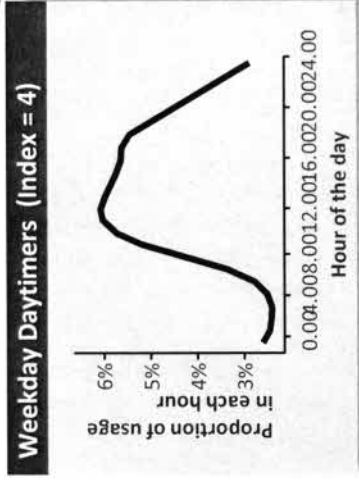
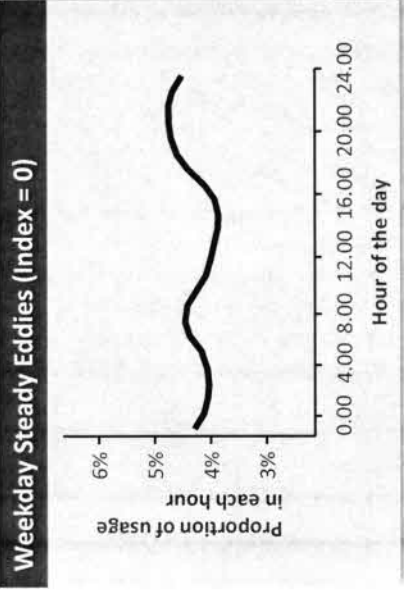
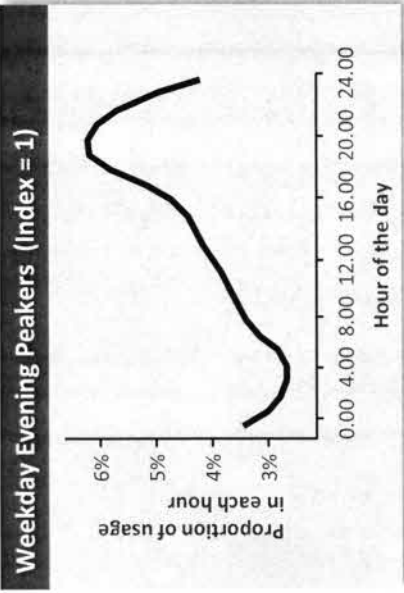
- Held events in Sun City, Flagstaff, Payson
- Expect at least 10 additional events to be held throughout Arizona prior to transition. Casa Grande and Pebble Creek scheduled for this year.

## Home shows and community events

- Approximately 130 events scheduled to provide awareness

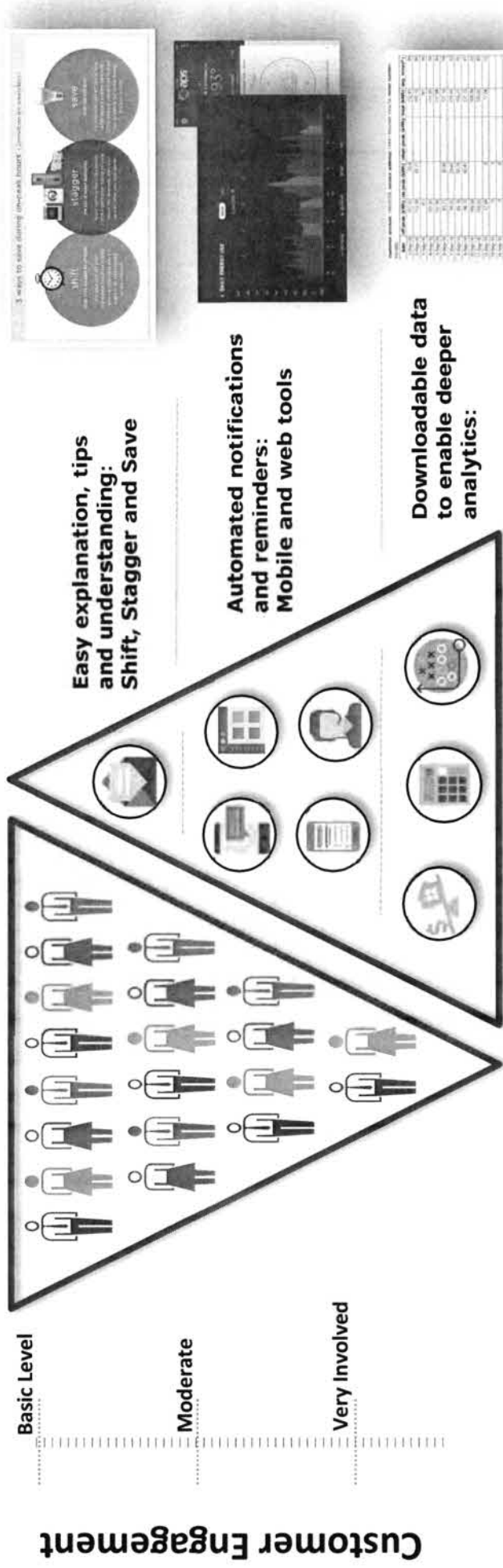
# Customer usage insights

- Recognize it is important to know our customer profiles in order to create tailored messaging
- Understand who they are, how they use our product and how best to communicate to them



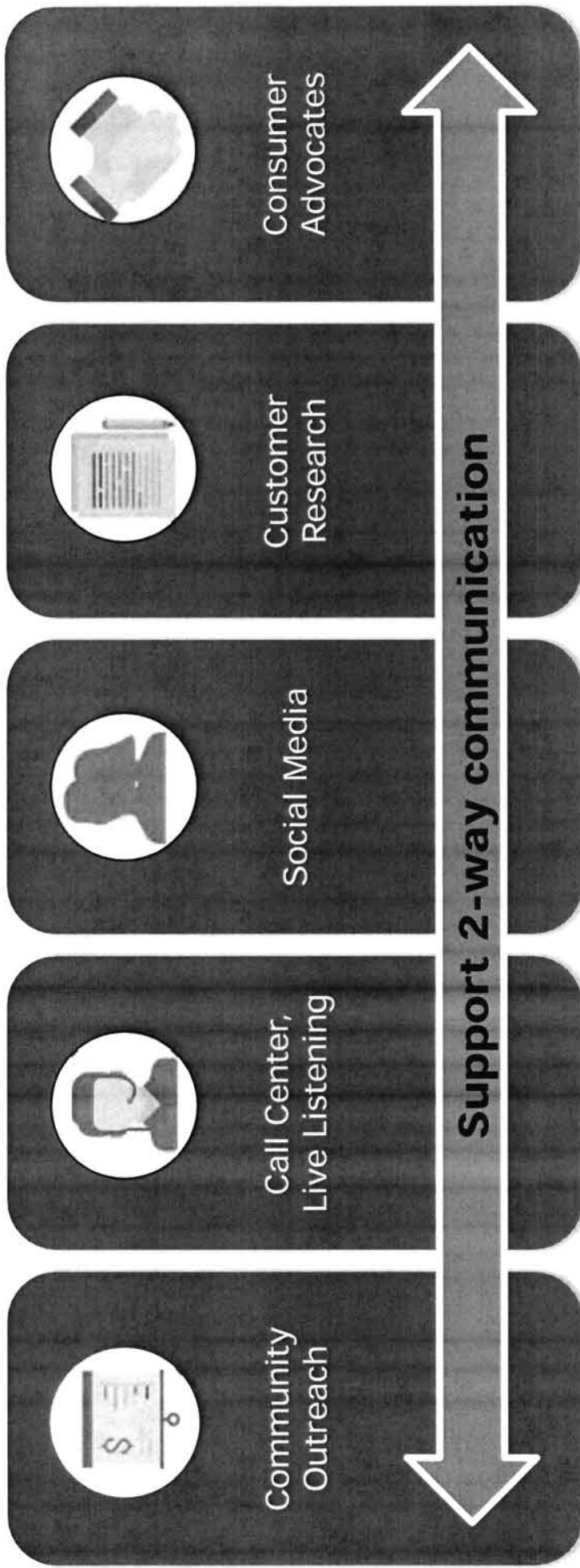
*Graphs: 5 load profile types for APS residential customers*

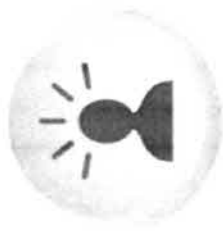
# Customers level of engagement



- Create a plan that addresses all types of customers and their individual engagement preference
- Give customers the option to receive their preferred level of information regarding their new rate plans and tips to save

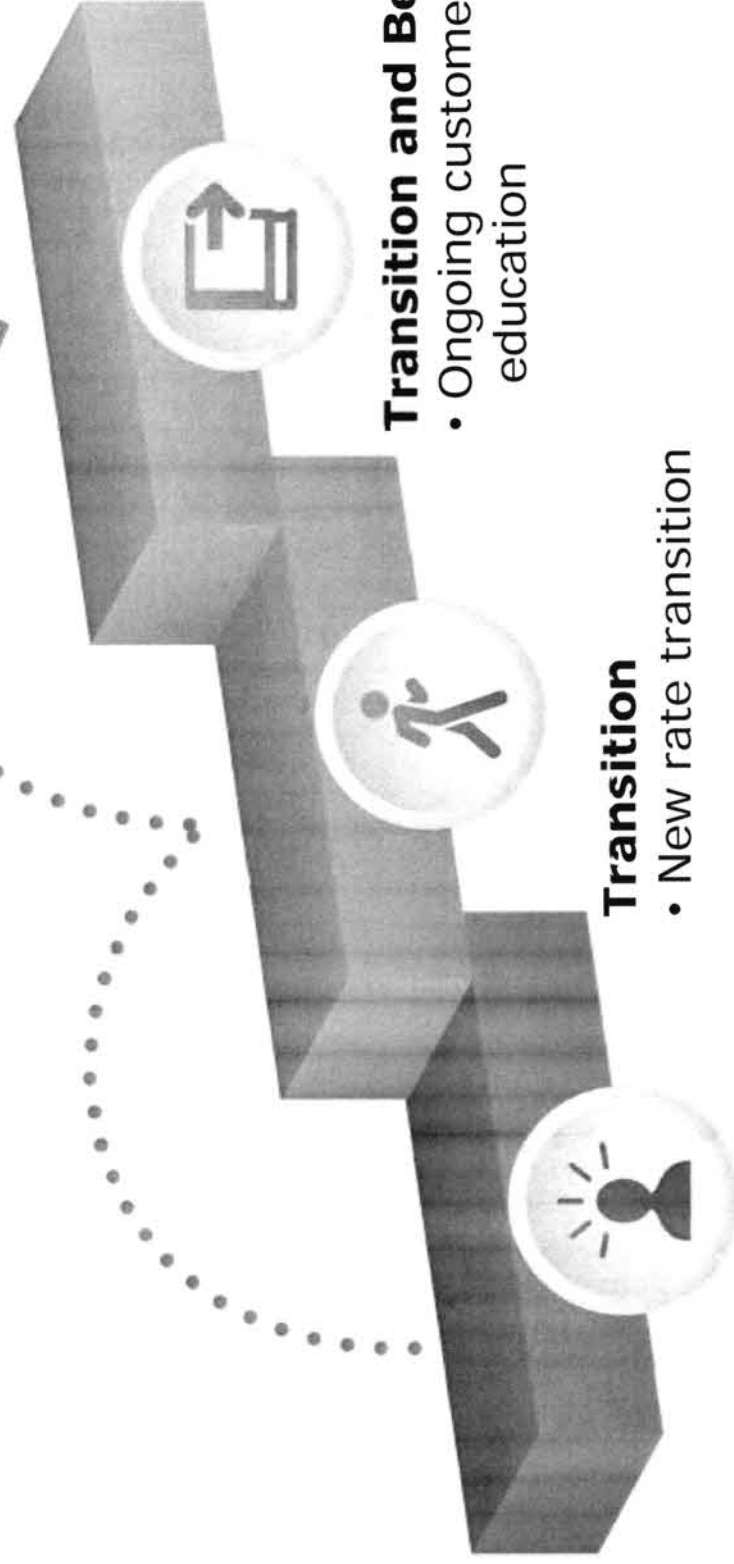
## Voice of the customer

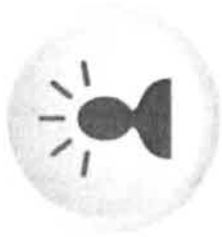




## Phases of Outreach

## Phases tied to the customer journey and overall transition





# AWARENESS

Pre-decision





# Awareness phase

## Phase objectives:

- Educate customers on energy usage prior to the rate transition
  - Build familiarity of Shift, Stagger and Save messaging and drive awareness of which household appliances use the most energy
- Inform the communities we serve through outreach
- Encourage adoption of APS tools and programs through marketing and advertising

### 3 ways to save during on-peak hours (3pm-8pm on weekdays)



#### shift

usage from on-peak to off-peak

For example, set your dishwasher to run on a delay cycle, run your pool pump at night or do your laundry on the weekend.



#### stagger

the use of major appliances

Avoid running major appliances at the same time during on-peak hours. For example, start your laundry after you cook dinner.



#### save




with tips and tools

For example, turn off ceiling fans when leaving a room, switch to LEDs, and get customized savings tips by taking our online Energy Analyzer survey.





# Awareness phase - education and outreach

E&O		Awareness Phase	
 <b>Newsletter</b>	<ul style="list-style-type: none"><li>• Dedicate section of the monthly newsletter for Shift, Stagger and Save messaging</li><li>• Gradual build of energy usage education</li></ul>	Monthly Articles (Beginning Q4 2016)	
		Targeted Email Campaigns (Beginning Q4 2016-transactional)	
 <b>Email</b>	<ul style="list-style-type: none"><li>• Create Shift, Stagger and Save messaging for transactional emails</li></ul>	APS.com advertising (Beginning Q4 2016)	
		IVR Awareness Recording (Beginning Q4 2016)	
 <b>IVR Message</b>	<ul style="list-style-type: none"><li>• Develop bill inserts and bill messaging with Shift, Stagger and Save messaging</li><li>• Vary bill insert and bill message by month</li></ul>	Monthly Bill Messages (Beginning 2017)	



Demand rates can be explained in two words: When and How

The newest way to save on your electric bill isn't that new.

Demand rates can vary by household. How to save stays the same.

aps

## Demand education

comparing two customers

Let's look at an example of how customers with similar appliances and rates plan their energy usage during different months. Energy customers, listed as two real households, illustrate how they use their energy during the summer and winter months.

Customer	Summer (July)	Winter (January)
Household A	12,500 kWh	8,500 kWh
Household B	10,000 kWh	7,000 kWh

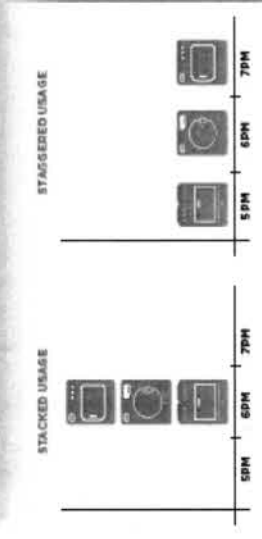
Peak usage: 7.5 kW (Household A), 6.5 kW (Household B)

Peak value: \$1.10/kWh (Household A), \$1.00/kWh (Household B)

## Shift, Stagger and Save: appliance usage

3 ways to save during on-peak hours (10am-6pm weekdays)

- Shift:** Move energy-intensive tasks to off-peak hours.
- Stagger:** Spread out energy-intensive tasks throughout the day.
- Save:** Use energy-efficient appliances.



## Shift, Stagger and Save: how to stagger

I WANT TO BE THE FIRST TO KNOW

Sign up for text and email alerts.

aps

I WANT TO BE THE FIRST TO KNOW

Sign up for text and email alerts.

aps

Get outage, usage and payment alerts

Sign up

YOUR ENERGY. YOUR OPTIONS.

## Alerts and notification campaign

I'M KIND OF A CONTROL FREAK

Download our app to view outages, payments, more

Introducing the APS app

Your energy options are now available in the palm of your hand.

aps

## Mobile app campaign

Make the switch to LEDs

Stay cool with a \$95 rebate on an Advanced AC Tune-Get LED instant discounts

START SAVING

YOUR ENERGY. YOUR OPTIONS.

aps

## Your Energy, Your Options campaign



# Transition

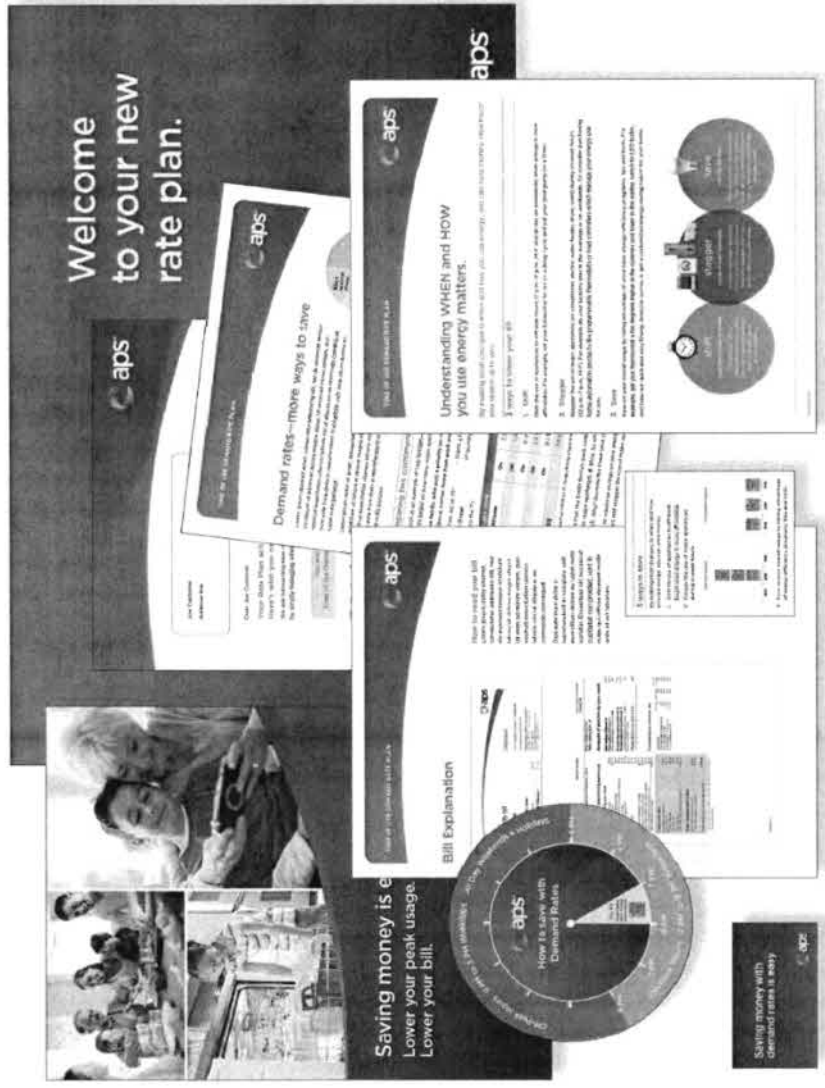
New rate transition



# Transition phase

## Phase objectives:








- Inform customers of transition details
  - Notice of upcoming change and best rate analysis
  - Reinforce Shift, Stagger and Save messaging, while providing additional tips to stagger and become familiar with their new rate plan
  - Welcoming communication via smart video and/or mailer
- Leverage segmentation to effectively communicate
- Ensure business readiness—people, process, systems and technology
- Execute rate transition



Sample welcome kit



# Transition phase - education and outreach

E&O	Transition Phase
 <b>Awareness Phase</b>	<ul style="list-style-type: none"> <li>Continue education and outreach efforts from the awareness phase with adjusted messaging to fit transition phase</li> <li>Newsletter, Bill Communications, Email, APS.com, IVR</li> </ul>
 <b>Letter</b>	<ul style="list-style-type: none"> <li>Personalized letter with customer information regarding upcoming transition and best rate analysis</li> <li>Sent via direct mail</li> </ul>
 <b>Smart Video</b>	<ul style="list-style-type: none"> <li>Personalized smart video with customer information regarding upcoming transition and best rate analysis</li> </ul>
 <b>Social Media</b>	<ul style="list-style-type: none"> <li>Leverage social media platforms to send TOU with demand and Shift, Stagger and Save messaging</li> <li>Monitor voice of the customer</li> </ul>
 <b>Community Partnerships</b>	<ul style="list-style-type: none"> <li>Leverage community partnerships to educate on TOU with demand transition</li> </ul>
 <b>Mass Media</b>	<ul style="list-style-type: none"> <li>Shift, Stagger and Save mass media campaign (radio, print, digital, podcast)</li> </ul>
 <b>Welcome Kit</b>	<ul style="list-style-type: none"> <li>Interactive and personalized welcome kit introducing customers to their new TOU with demand rate plan</li> </ul>



# Transition and Beyond

Ongoing customer education







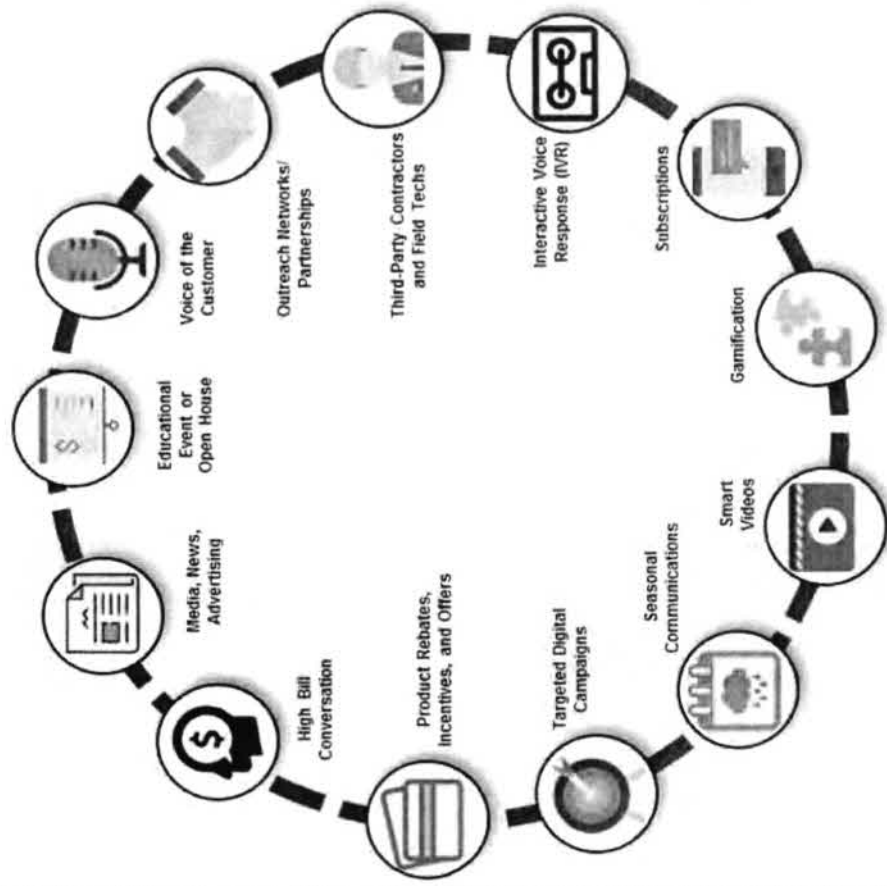
# Transition and beyond phase

## Phase objectives:

- Continue Shift, Stagger and Save messaging and incorporate outbound outreach as appropriate
- Reminders and savings tips before high heat and cooling seasons
- Encourage participation in programs, alerts and other service offerings
- Monitor customer feedback regarding recent transition experience

TOU with Demand Post-Transition

Ongoing Proactive Management and Adoption





# Transition and beyond phase - education and outreach

E&O		Beyond Transition
	Seasonal Readiness	<ul style="list-style-type: none"><li>• Seasonal tips to prepare for temperature changes</li></ul>
	Proactive Communications	<ul style="list-style-type: none"><li>• Personalized communication triggered by usage behaviors. Activated in advance of potential high bill</li><li>• Provide list of actions customer can take to Shift, Stagger and Save</li></ul>
	Mass Media	<ul style="list-style-type: none"><li>• Continue Shift, Stagger and Save mass media campaign (radio, print, digital)</li></ul>
	Bill Communications	<ul style="list-style-type: none"><li>• Personalized bill messages and inserts explaining TOU with demand</li></ul>
	Awareness & Transition Phase	<ul style="list-style-type: none"><li>• Continue education and outreach efforts from the awareness and transition phases with adjusted messaging to fit the post-transition phase</li></ul>



# Summary

- **Our commitment:**

- Create a seamless and transparent customer journey
- Leveraging the success of current rate plans and our customer's experience
- Create an awareness of TOU with demand rates for our customers, with the goal of leaving them feeling well informed
- Provide helpful tools and resources



# **Rate Design-Overview of Residential Rates and Changes**



# Rate Design Modernization

Focus Area	Current State	Rate Case Objective
<b>Time-of-Use Rates (TOU)</b>	<ul style="list-style-type: none"> <li>&gt; 50% of residential customers are on a TOU rate</li> <li>On-peak hours from 12-7 PM (M-F)</li> <li>TOU difference in on-peak prices that are 4 times the off-peak prices</li> </ul>	<ul style="list-style-type: none"> <li>Most residential customers on a TOU rate</li> <li>On-peak hours from 3-8 PM (M-F) to better align with system peak</li> <li>TOU difference in on-peak prices that are 2 times the off-peak prices</li> </ul>
<b>Demand Rates</b>	<ul style="list-style-type: none"> <li>11% of residential customers are on demand rates, more than any other electric utility</li> </ul>	<ul style="list-style-type: none"> <li>Most residential customers on demand rates</li> <li>Calculated on the highest demand averaged over a one-hour period during the on-peak period each month</li> </ul>
<b>Basic Service (Fixed) Charge</b>	<ul style="list-style-type: none"> <li>Customers pay basic service charge ranging from \$8.67 - \$16.91 per month</li> </ul>	<ul style="list-style-type: none"> <li>Set basic service charge for all rate classes ranging from \$14 - \$24 per month</li> </ul>
<b>Net Metering</b>	<ul style="list-style-type: none"> <li>Excess power compensated at full retail price</li> </ul>	<ul style="list-style-type: none"> <li>Excess power compensated at export price aligned with avoided cost</li> <li>Recovery of cost to purchase through existing PSA mechanism</li> <li>Grandfather qualified rooftop solar customers</li> </ul>



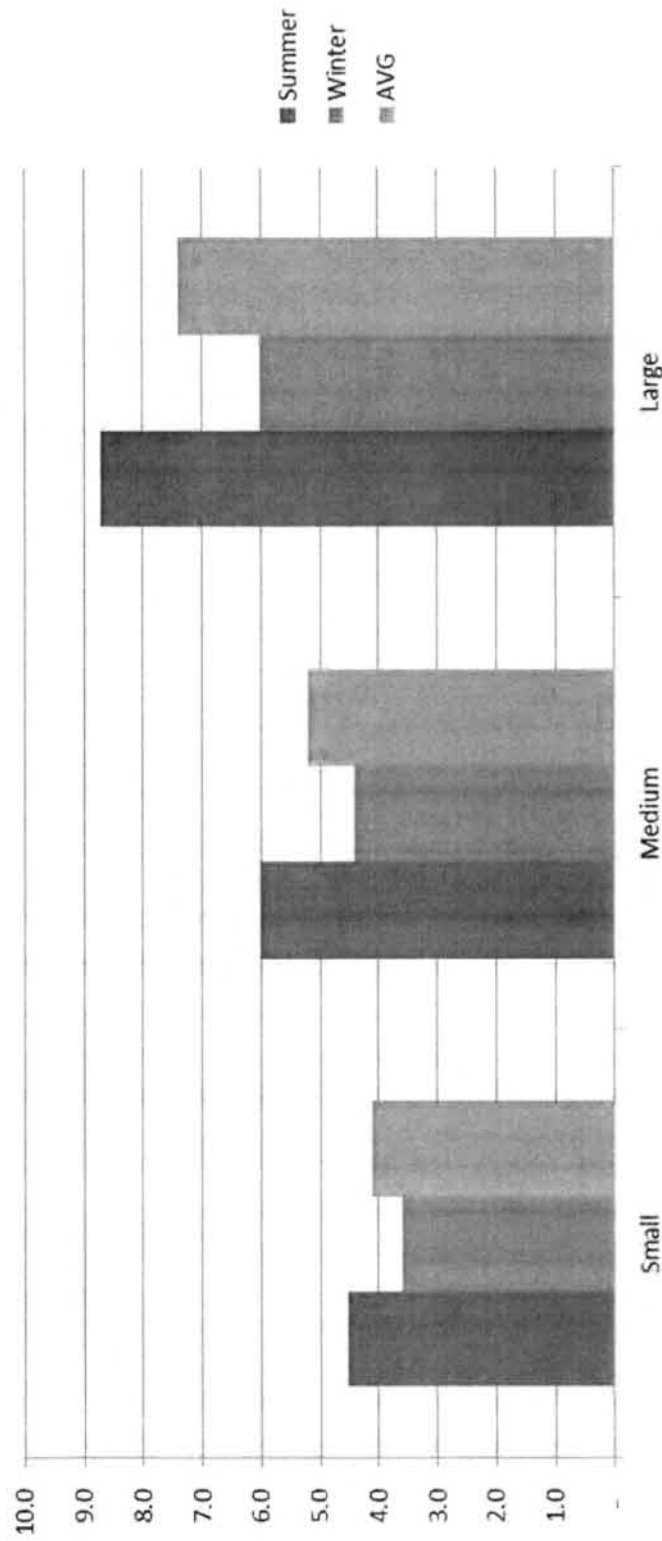
## Residential Rate Design

- Three Rate Options
- Extra Small Rate (<600kWh per month)
- On-peak hours 3-8 p.m. and four new off-peak holidays
- \$34/month credit (up to 80% of bill) for limited-income customers
- "Flat Bill" Option (not the same as equalizer)
- AMI meter opt-out fee
- Grandfather solar customers

	<u>Basic Service Charge</u> (per month)	<u>Demand Charge</u> (\$/kW)	<u>Summer Energy Charge</u> (On/Off Peak \$/kWh)	<u>Winter Energy Charge</u> (On/Off Peak \$/kWh)
Extra Small*	\$18	None	\$0.10324	\$0.10324
R-1	\$24	\$6.60/kW	\$0.15160/\$0.08070	\$0.12730/\$0.08070
R-2	\$14.50	\$8.40/kW	\$0.15160/\$0.08080	\$0.12730/\$0.08080
R-3	\$24	\$16.40/kW summer \$11.50/kW winter	\$0.09090/\$0.05475	\$0.06670/\$0.05475

# Residential Demand

Monthly Peak Usage (kW)  
By Home Size and Season



Small Home - 750 kWh per month

Medium Home - 1100 kWh

Large Home - 2050 kWh

1- hour demand  
On-peak only Noon to 7 pm

Note: 96% of customer bills are under 10 kW demand

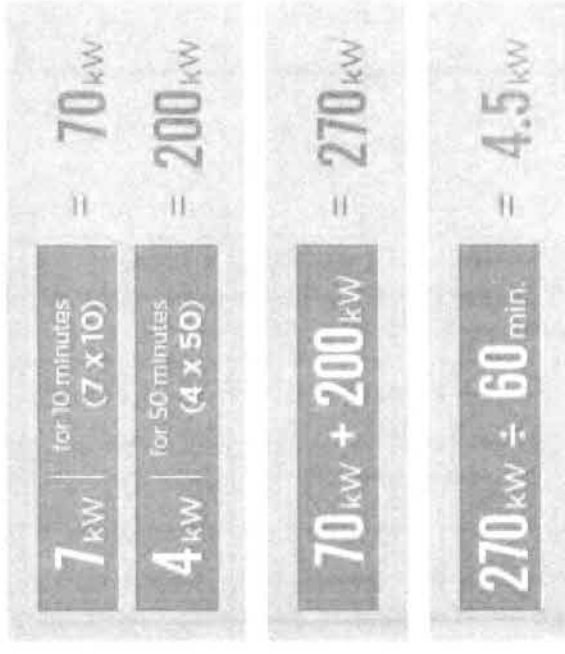
# How is Average Demand Calculated?

Demand is averaged over an entire hour—not just one moment in time.

6:00 - 6:10pm – 7 kW – using the oven, dryer and AC at the same time

6:11 - 7:00pm – 4 kW – oven and dryer turned off

The demand averaged over an hour is 4.5 kW





# Extra Small Customer Bill Impacts

Average Energy & Demand - 450 kWh, 3 kW

Customer Bill				
	Rate	Basic Service Charge	Energy Charge	Demand Charge
Transitional Rate <sup>1</sup>	E-12	\$ 10	\$ 56	-
New Rate <sup>3</sup>	R-XS	\$ 18	\$ 47	-
Impact		\$ 8	\$ (9)	\$ (1)

<sup>1</sup> Transitional Rates incorporate current rate structure with requested rate increase

<sup>2</sup> Total amount reflects base rate charges only and excludes adjutor charges, taxes and fees

<sup>3</sup> Best rate





# Small Customer Bill Impacts

*Average Energy & Demand – 750 kWh, 4 kW*

Customer Bill					
	Rate	Basic Service Charge	Energy Charge	Demand Charge	Total <sup>2</sup>
Transitional Rate <sup>1</sup>	E-12	\$10	\$101	-	\$111
Transitional Rate <sup>1</sup>	ET-2	\$20	\$92	-	\$112
New Rate <sup>3</sup>	R-2	\$15	\$69	\$34	\$118
Impact	E-12 Impact	\$5	(\$32)	\$34	\$8
Impact	ET-2 Impact	(\$5)	(\$23)	\$34	\$6

<sup>1</sup> Transitional Rates incorporate current rate structure with requested rate increase

<sup>2</sup> Total amount reflects base rate charges only and excludes adjutor charges, taxes and fees

<sup>3</sup> Best rate





# Medium Customer Bill Impacts

*Average Energy & Demand – 1,100 kWh, 5 kW*

Customer Bill					
	Rate	Basic Service Charge	Energy Charge	Demand Charge	Total <sup>2</sup>
Transitional Rate <sup>1</sup>	E-12	\$10	\$160	-	\$170
Transitional Rate <sup>1</sup>	ET-2	\$20	\$134	-	\$154
New Rate <sup>3</sup>	R-1	\$24	\$102	\$33	\$159
Impact	E-12 Impact	\$14	(\$58)	\$33	(\$11)
Impact	ET-2 Impact	\$4	(\$32)	\$33	\$5

<sup>1</sup> Transitional Rates incorporate current rate structure with requested rate increase

<sup>2</sup> Total amount reflects base rate charges only and excludes adjutor charges, taxes and fees

<sup>3</sup> Best rate



# Large Customer Bill Impacts

*Average Energy & Demand – 2,050 kWh, 7 kW*

Customer Bill					
	Rate	Basic Service Charge	Energy Charge	Demand Charge	Total <sup>2</sup>
Transitional Rate <sup>1</sup>	ET-2	\$20	\$250	-	\$270
Transitional Rate <sup>1</sup>	ECT-2	\$20	\$127	\$99	\$246
New Rate <sup>3</sup>	R-3	\$24	\$123	\$101	\$248
Impact	ET-2 Impact	\$4	(\$127)	\$101	(\$22)
Impact	ECT-2 Impact	\$4	(\$4)	\$3	\$3

<sup>1</sup> Transitional Rates incorporate current rate structure with requested rate increase

<sup>2</sup> Total amount reflects base rate charges only and excludes adjutor charges, taxes and fees

<sup>3</sup> Best rate



# Small Customer Bill Impact Sensitivities

ET-2 and E-12 Customers Billed on Best Rate					
Load Factor	Demand kW	Energy kWh	Bill	Impact	
				ET-2	E-12
23%	4.5	750	\$122	\$11	\$12
26%	4.0	750	\$118	\$6	\$8
29%	3.5	750	\$114	\$2	\$3



# Medium Customer Bill Impact Sensitivities

ET-2 and E-12 Customers Billed on Best Rate					
Load Factor	Demand kW	Energy kWh	Bill	Impact	
				ET-2	E-12
25%	6.0	1,100	\$165	\$11	(\$5)
30%	5.0	1,100	\$159	\$5	(\$11)
37%	4.0	1,100	\$152	(\$2)	(\$18)



# Large Customer Bill Impact Sensitivities

ET-2 and ECT-2 Customers Billed on Best Rate					
Load Factor	Demand kW	Energy kWh	Bill	Impact	
				ET-2	ECT-2
35%	8.0	2,050	\$262	(\$9)	\$3
40%	7.0	2,050	\$248	(\$22)	\$3
47%	6.0	2,050	\$233	(\$37)	\$2

# Future Technical Conference

- **Thursday, November 3rd, 2016 from 2:00-3:30pm**
  - **Location Change: APS Learning Center**
  - **Proposed Topics**
    - Adjustments and updates to APS's request and SFR's
    - Discovery
    - Dates and locations for settlement discussions

*If have any questions, please email [ratecase@aps.com](mailto:ratecase@aps.com)*